

is found, processor 650 may take any other suitable action, such as communicating a quotation 34 for the quantity identified or a failure message to fulfillment server 16. This represents only one example method of generating component quotations 34. Other methods may be used without departing from the scope of the present

5 invention.

The generation of a component quotation 34 may or may not include a reservation of the identified quantities of the product. A reservation holds the identified quantities of the product for at least some amount of time, which may allow the client 12 requesting the quotation 34 to decide whether to accept or reject it. For example, if LFM 622 produces a quotation 34 for a first client 12 and reserves particular units of the product, a second client 12 may be prevented from purchasing the same units of the product that have been reserved for the first client 12. This gives the first client 12 the opportunity to study the quotation 34 and make a decision on whether to accept it. The decision whether or not to reserve particular units of a product may depend on one or more factors. For example and without limitation, LFM 622 may reserve particular units of the product based on the product requested, the customer requesting the quotation 34, the quantity of the product requested, and the price of the product. A client 12 could also indicate whether LFM 622 should reserve the particular units when the client 12 requests the quotation 34. In addition, LFM 622 may make the reservation time-dependent, where the reservation is cancelled after a specified amount of time elapses.

If a client 12 accepts the quotation 34, LFM 622 receives a component quotation confirmation 40 from fulfillment server 16. If a reservation was made during the generation of the quotation 34, processor 650 may convert the reservation to a confirmed order. Otherwise, processor 650 checks the availability of the requested product in supply vector 662. If the product is available, processor 650 may generate a component promise 44, which represents consumption of at least a portion of the available supply of the requested product and an assignment of that portion to an order from client 12. Processor 650 communicates the component promise 44 to fulfillment server 16. If client 12 accepts the promise 46 generated by fulfillment server 16 using the component promise 44, LFM 622 may receive a component acceptance 52 from fulfillment server 16. Processor 650 processes component

acceptance 52, which creates a formal acceptance to the existing promise 46. Processor 650 may also generate a component acceptance confirmation 54 and communicate the acceptance confirmation 54 to fulfillment server 16.

5 If a client 12 rejects the quotation 34, LFM 622 receives a rejection notice from fulfillment server 16. If a reservation was made during the generation of the quotation 34, processor 650 may release the units of the product reserved and return them to the pool of available products. This increases the quantity of the product that is available to other clients 12. If no reservation was made during the generation of the quotation 34, processor 650 may take no further action.

10 LFM 622 may further monitor any planning changes affecting the promise characteristics of component ATP requests 32. For example, LFM 622 may monitor the changes to supply vector 662 and identify when those changes affect previously-accepted promises. LFM 622 may generate a planning change notification 60 for the change and may also note any failure conditions that exist and communicate the 15 notification 60 to fulfillment server 16. Planning change notification 60 may prompt fulfillment server 16 to generate a revised promise 62 and send it to client 12. Instead or in addition, fulfillment server 16 may evaluate planning change notification 60 and generate one or more revised component ATP requests 66, which are sent to LFM 622. LFM 622 may process the revised component ATP request 66 in the same or 20 similar manner as component ATP requests 32.

LFM 622 may further receive one or more supply updates from a supplier or other entity in the supply chain. The supply updates may represent increases in the available supply of a product, such as production, delivery, returns of the product, or cancellation of a previously-reserved quantity of a product made during the 25 generation of a quotation 34. The supply updates may also represent decreases in the available supply of a product, such as a cancellation of scheduled production of the product. The supply updates may further represent modifications to the planned supply of a product, such as a change in the scheduled production amount of the product or the date of the delivery of a product. The updates may include any suitable 30 information, such as the identity of the product, the quantity involved in the update, and the date of the update. The update could also include the transaction that causes the update and the time of the transaction. The transaction that causes the update

could identify whether the update was caused by the procurement of a new supply of the product, a cancelled quotation 34, a return of the product, or other cause. The supply updates may be stored in database 658 as supply transactions 668.

In addition, LFM 622 may allow a user associated with a supplier using LFM 622 or other entity in the supply chain to review the information stored in database 658. For example, a user associated with a supplier may wish to review the orders placed with the supplier. LFM 622 could allow the user to access and view the component ATP requests 32 received from fulfillment server 16, the component quotations 34 generated, the component quotation confirmations 40 received from fulfillment server 16, the component promises 44 generated, the component acceptances 52 received from fulfillment server 16, and/or the component acceptance confirmations 54 generated. In one embodiment, after identifying the user using one or more security methods, LFM 622 may provide one-click access allowing a user to review all of the information about a particular supplier or supplier account.

Similarly, LFM 622 could receive notifications when products are shipped to or from a supplier, and LFM 622 could update fulfillment server 16, one or more clients 12, a delivery engine such as a TRADE MATRIX GLOBAL LOGISTICS MONITOR from i2 TECHNOLOGIES, INC., or other component of system 10. LFM 622 may also provide one-click access allowing a user to review details about a particular shipment involving the supplier. LFM 622 may take any other and/or additional actions according to various needs without departing from the scope of present invention.

In one embodiment, LFM 622 may further execute a planning engine, such as a FP or SCP engine. In this embodiment, LFM 622 may receive shipment notifications indicating that at least one shipment of one or more products has been made. LFM 622 may update the status of locally maintained component ATP requests 32 and component promises 44 to reflect the fulfillment before sending resulting component fulfillment notifications to fulfillment server 16. LFM 622 could also communicate the component fulfillment notifications to a TRADE MATRIX GLOBAL LOGISTICS MONITOR from i2 TECHNOLOGIES, INC. or other component of system 10.

Although FIGURE 6 illustrates one example embodiment of LFM 622, various changes may be made to LFM 622 without departing from the scope of the

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